WHAT IS CLAIMED IS:

1. A method for operating a voice-supported system in a motor vehicle, the system including at least one microphone, at least one loudspeaker, and a bandpass filter arranged between the microphone and the loudspeaker, comprising:

determining a power of the signal as a function of frequency; and

adjusting the bandpass filter at least one of as a function of at least one local maximum of the power of the signal as a function of the frequency and as a function of a derivative of the power of the signal with respect to frequency.

2. The method according to claim 1, wherein the voice-supported system includes at least one of a communications device, an intercom device, a two-way intercom device, and a duplex telephony device.

3. The method according to claim 1, further comprising determining the local maximum of the power of the signal as a function of the derivative of the power of the signal with respect to frequency.

4. The method according to claim 1, further comprising determining the local maximum of the power of the signal as a function of a first derivative of the power of the signal with respect to frequency.

5. The method according to claim 1, further comprising:

forming a slope signal from a first derivative of the power of the signal with respect to the frequency having a first binary value when the first derivative of the power of the signal with respect to frequency is greater than or equal to zero and a second binary value when the first derivative of the power of the signal with respect to frequency is less than zero; and

determining the local maximum of the power of the signal as a function of a first derivative of the slope signal.

6. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step as a function of a first derivative of the power of the signal with respect to frequency.

7. The method according to claim 1, further comprising forming a slope signal having a first binary value when a first derivative of the power of the signal with respect to frequency is greater than or equal to zero and a second binary value when the first derivative of the power of the signal with respect to frequency is less than zero, the bandpass filter adjusted in the adjusting step as a function of the slope signal.

8. The method according to claim 7, wherein the bandpass filter is adjusted in the adjusting step as a function of a first derivative of the slope signal.

9. The method according to claim 1, further comprising determining all local maxima in one frequency range.

10. The method according to claim 9, further comprising determining a global maximum in the frequency range.

11. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio at least of the power of the signal at a frequency at which the power of the signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold.

12. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a

portion of the signal at a notch frequency only when a ratio at least of the power of the signal at a frequency at which the power of the signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold for longer than a time-ratio-threshold.

13. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at frequencies of the signal adjacent to the frequency at which the power of the signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold.

14. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at frequencies of the signal adjacent to the frequency at which the power of the signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold for longer than a time-ratio-threshold.

15. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at a frequency of the signal that is directly adjacent to the frequency at which the power of the signal is a maximum and at which the power is greater than at a frequency that is also directly adjacent to the frequency at which the power of the

signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold.

16. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at a frequency of the signal that is directly adjacent to the frequency at which the power of the signal is a maximum and at which the power is greater than at a frequency that is also directly adjacent to the frequency at which the power of the signal is a maximum to an average value of the power of the signal at additional frequencies of the signal is greater than a feedback-power threshold for longer than a time-ratio-threshold.

17. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at a frequency of the signal that is directly adjacent to the frequency at which the power of the signal is a maximum and at which the power is greater than at a frequency that is also directly adjacent to the frequency at which the power of the signal is a maximum to an average value of the power of the signal of all further frequencies of the signal is greater than a feedback-power threshold.

18. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum plus the power of the signal at a frequency of the signal that is directly adjacent to the

frequency at which the power of the signal is a maximum and at which the power is greater than at a frequency that is also directly adjacent to the frequency at which the power of the signal is a maximum to an average value of the power of the signal of all additional frequencies of the signal is greater than a feedback-power threshold for longer than a time-ratio-threshold.

19. The method according to claim 11, further comprising determining the feedback-power threshold as a function of an output signal of the bandpass filter.

20. The method according to claim 11, wherein the feedback-power threshold is between 20 and 50.

21. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum to an average value of the power of the signal at further frequencies at which the power of the signal includes a local maximum is greater than a power threshold.

22. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step to block a portion of the signal at a notch frequency only when a ratio of the power of the signal at a frequency at which the power of the signal is a maximum to an average value of the power of the signal at all further frequencies at which the power of the signal includes a local maximum is greater than a power threshold.

23. The method according to claim 21, wherein the power threshold is one of between 20 and 50 and between 30 and 40.

24. The method according to claim 22, wherein the power threshold is one of between 20 and 50 and between 30 and 40.

25. The method according to claim 1, wherein the bandpass filter is adjusted in the adjusting step as a function of an output signal.

26. A device for operating a voice-enhancement system, comprising:

at least one microphone;

at least one loudspeaker configured to reproduce a signal generated by the microphone;

a bandpass filter arranged between the microphone and the loudspeaker; and

decision logic configured to adjust the bandpass filter at least one of as a function of at least one local maximum of a power of the signal as a function of frequency and as a function of a derivative of the power of the signal with respect to frequency.

27. The device according to claim 26, wherein the bandpass filter includes a filter bank having at least one notch filter.

28. The device according to claim 26, further comprising an arrangement configured to determine the power of the signal as a function of frequency.

29. A device for operating a voice-enhancement system, comprising:

at least one microphone;

at least one loudspeaker configured to reproduce a signal generated by the microphone;

a bandpass filter arranged between the microphone and the loudspeaker;

an arrangement configured to determine a power of the signal as a function of frequency; and

an arrangement configured to adjust the bandpass filter at least one of as a function of at least one local maximum of the power of the signal as a function of the frequency and as a function of a derivative of the power of the signal with respect to frequency.

30. A device for operating a voice-enhancement system, comprising:

at least one microphone;

at least one loudspeaker for reproducing a signal generated by the microphone;

a bandpass filter arranged between the microphone and the loudspeaker;

means for determining a power of the signal as a function of frequency; and

means for adjusting the bandpass filter at least one of as a function of at least one local maximum of the power of the signal as a function of the frequency and as a function of a derivative of the power of the signal with respect to frequency.